

## The Basics of a Good Gravel Road

### A Gravel Road Maintenance Class

April 28, 2004 (#626)  
Class Canceled

Educational Service District, 33 S. Second Ave.,  
Yakima, WA 98902 (509) 454-3125

May 11, 2004 (#627)

LaQuinta Inn, 1425 E. 27<sup>th</sup> Street,  
Tacoma, WA 98421 (253) 383-0146

(The phone numbers shown above are for your information and should be used only for making room reservations or in case of emergency to contact a student in the class.)

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**Cost: \$45**

**Time: 8:30 a.m. to 4:00 p.m.**

**Class Size: 35**

**Instructor: Bill Heiden**

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#### Target Audience:

This class is for anyone who has responsibility for maintenance and/or design of gravel roads and streets. Maintenance operators and supervisors of city, county, tribal, state, and forest service roads will expand their knowledge about maintaining gravel roads. In addition, design engineers, technicians, field engineers, inspectors, and industry representatives will find Mr. Heiden's presentation extremely beneficial.

#### Course Description:

Gravel and dirt roads make up approximately thirty seven percent of all roads in the United States today. However, the funds allocated to these roads is often only a small portion of the total amount spent on roadway construction. Therefore, it is important to take full advantage of the knowledge, tools, and techniques available to us today.

The WST2 Center offers this training to local agencies and other Washington State municipalities who have gravel roads within their jurisdictions. Mr. Heiden comes from Colorado to present his program on the basic maintenance and construction of a good gravel road, and will address all major problems and concerns of unpaved roads: washboarding (corrugation), traffic patterns, rutting, surface drainage, dust control, surface material, and roadside obstructions. The techniques that Mr. Heiden teaches can help to reduce unpaved road maintenance expenditures to 40 percent or less of current expenditures in three to five years.



**Agenda:**

- **Engineering Basics:** In-depth discussion of desired traffic wear patterns: Proper shape, centerline, cross slope, roadway edges, and roadside intimidation.
- **Good Surface Materials:** A brief, simplified explanation of how soils work and what you need for a lasting road.
- **Dust Palliatives/Base Stabilizers:** Report on a joint study on use and effectiveness of dust palliatives.
- **Equipment and Methods to Maintain a Good Gravel Road**
- **Sequences and Specifications**

**Instructor:** Bill Heiden is a professional engineer and retired land surveyor. He has a background of over 40 years experience as a county road engineer and contractor working in the construction and maintenance of roads in Larimer and Gilpin Counties in Colorado. Since 1999 he has consulted and lectured in New Mexico, Arizona, South Dakota, Texas, Utah, Oklahoma, Indiana, Idaho, Oregon, Alaska, Wyoming, as well as in Washington State and British Columbia. Mr. Heiden is recognized throughout the United States for his expertise on drainage and gravel roads. In addition, he has a wealth of knowledge on practical business measures that can help cut costs for your agency. Mr. Heiden is also teaching a "Roadway Drainage" course for T2 customers this year.

**Questions?** Contact Laurel Gray at (360) 705-7355 or [GrayL@wsdot.wa.gov](mailto:GrayL@wsdot.wa.gov).

**Registration:**

Please register on-line using this link: [On-line Registration Form](#). Fill in your information, select your class from the list, then press "Submit." A registration notice is e-mailed to you when we

process your request. **If you do not receive this e-mail notification within a few days, you are not registered and should contact us by phone.**

Please do not prepay, an invoice will be mailed after the class. Confirmation letters are mailed three weeks prior to the class and will have driving directions to the training site. If you are unable to attend, someone else from your agency may attend in your place. To cancel your registration, or for assistance with registration, e-mail [wst2center@wsdot.wa.gov](mailto:wst2center@wsdot.wa.gov) or [schmidw@wsdot.wa.gov](mailto:schmidw@wsdot.wa.gov) , or phone (360) 705-7386.

\* A “unique identifier” is now required when registering on-line. You might use the last four digits of your social security number, your mother’s maiden name, a child or pet name, or your birth date, but please make it something you will remember. We will use your name and this identifier to automatically and quickly register you into a class.

(Disability accommodations provided upon request.)

**Washington State Technology Transfer’s Web Page:** [www.wsdot.wa.gov/TA/T2Center/t2hp.htm](http://www.wsdot.wa.gov/TA/T2Center/t2hp.htm)